

PUI: Final Project

Assignment FP4

9th December 2022

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Link to final project

Link to final project:

<https://aradhanavenkat.github.io/pui-homework-aradhana/Final%20Project/>

Website is fully responsive and can be tested on any screen size! But just to specify -

1. **Desktop** - Full screen(full size on your desktop) or 1280 x 832
2. **Mobile** - 375 x 667

Considerations for Accessibility

- 1. Choice of colors**
- 2. Alt text and headers**
- 3. WAVE Tool**



Choice of colours

My initial colour palette choices while being bold and playful had contrast issue and were not accessible, hence I changed my website colour palette to ensure accessibility (red and blue are least accessible colours) and contrast as well. The colours selected while being accessible are also playful and fit well with the theme of the website.

INITIAL COLOUR PALETTE



UPDATED COLOUR PALETTE



Alt text and headers

On every page, I ensured to add alt text to all the images as well as incorporated header tags to ensure that the page is more accessible and user friendly.



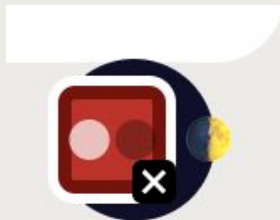
h2 LET'S SEE IF YOU CA

h3 Which starbucks woul

Screenshots of the WAVE tool

On every page, I got a contrast error alert on the tool due to this 🌙 icon in the toggle button present in the dark mode library used on the website. If I remove that icon, the contrast error gets resolved. Based on conversation with my TA, I retained the icon on the website as an indicator to show that the button can be clicked to toggle to view dark and light mode.

In the screenshot of the WAVE tool for every page, I have added two versions of the result. One with the icon and one without.





Screenshots of the WAVE tool - Home Page


Without icon on darkmode toggle button


Summary


DetailsReferenceStructureContrast


 0
Errors


 0
Contrast Errors

 1
Alerts

 4
Features

 3
Structural Elements


 2
ARIA




Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

Details


SummaryReferenceStructureContrast

☒  1 Alerts


- ☐ 1 X No page regions

☒  4 Features

- ☐ 3 X Linked image with alternative text
- ☐ 1 X Language

☒  3 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 2 X Heading level 2


☒  2 ARIA


- ☐ 1 X ARIA
- ☐ 1 X ARIA label


With  icon on darkmode toggle button


Summary


DetailsReferenceOrderStructureContrast


 0
Errors


 1
Contrast Errors

 1
Alerts

 4
Features


 3
Structural Elements

 2
ARIA




Details


SummaryReferenceOrderStructureContrast

☒  1 Contrast Errors


- 1 X Very low contrast

☒  1 Alerts


- ☐ 1 X No page regions

☒  4 Features

- ☐ 3 X Linked image with alternative text
- ☐ 1 X Language

☒  3 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 2 X Heading level 2

☒  2 ARIA

- ☐ 1 X ARIA
- ☐ 1 X ARIA label

Screenshots of the WAVE tool - Quiz page front

Without icon on darkmode toggle button

The image shows two panels from the WAVE tool. The 'Summary' panel on the left has a top navigation bar with icons for Summary, Details, Reference, Structure, and Contrast. The 'Details' panel on the right has a top navigation bar with icons for Summary, Details, Reference, Structure, and Contrast. The 'Summary' panel displays four categories: Errors (0), Contrast Errors (0), Alerts (4), and Features (8). Below these are Structural Elements (9) and ARIA (2). A 'View details' button is at the bottom. The 'Details' panel shows a list of issues: 4 Alerts (1 X No page regions, 3 X Device dependent event handler), 8 Features (5 X Alternative text, 2 X Linked image with alternative text, 1 X Language), 9 Structural Elements (1 X Heading level 1, 3 X Heading level 2, 3 X Heading level 3, 2 X Heading level 4), and 2 ARIA (1 X ARIA, 1 X ARIA label).

Summary

Summary Details Reference Structure Contrast

Errors 0

Contrast Errors 0

Alerts 4

Features 8

Structural Elements 9

ARIA 2

[View details](#)

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

Details

Summary Details Reference Structure Contrast

☒ 4 Alerts

- ☐ 1 X No page regions
- ☐ 3 X Device dependent event handler

☒ 8 Features

- ☐ 5 X Alternative text
- ☐ 2 X Linked image with alternative text
- ☐ 1 X Language

☒ 9 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 3 X Heading level 2
- ☐ 3 X Heading level 3
- ☐ 2 X Heading level 4

☒ 2 ARIA

- ☐ 1 X ARIA
- ☐ 1 X ARIA label

With  icon on darkmode toggle button

The image shows two panels from the WAVE tool. The 'Summary' panel on the left has a top navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The 'Details' panel on the right has a top navigation bar with icons for Summary, Details, Reference, Order, Structure, and Contrast. The 'Summary' panel displays four categories: Errors (0), Contrast Errors (1), Alerts (4), and Features (8). Below these are Structural Elements (9) and ARIA (2). A 'View details' button is at the bottom. The 'Details' panel shows a list of issues: 1 Contrast Errors (1 X Very low contrast), 4 Alerts (1 X No page regions, 3 X Device dependent event handler), 8 Features (5 X Alternative text, 2 X Linked image with alternative text, 1 X Language), 9 Structural Elements (1 X Heading level 1, 3 X Heading level 2, 3 X Heading level 3, 2 X Heading level 4), and 2 ARIA (1 X ARIA, 1 X ARIA label).

Summary

Summary Details Reference Order Structure Contrast

Errors 0

Contrast Errors 1

Alerts 4

Features 8

Structural Elements 9

ARIA 2

[View details](#)

Details

Summary Details Reference Order Structure Contrast

☒ 1 Contrast Errors

- ☐ 1 X Very low contrast

☒ 4 Alerts

- ☐ 1 X No page regions
- ☐ 3 X Device dependent event handler

☒ 8 Features

- ☐ 5 X Alternative text
- ☐ 2 X Linked image with alternative text
- ☐ 1 X Language

☒ 9 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 3 X Heading level 2
- ☐ 3 X Heading level 3
- ☐ 2 X Heading level 4

☒ 2 ARIA

- ☐ 1 X ARIA
- ☐ 1 X ARIA label

Screenshots of the WAVE tool - Quiz page back

Without icon on darkmode toggle button

Summary

Summary Details Reference Structure Contrast

Errors 0

Contrast Errors 0

Alerts 1

Features 5

Structural Elements 7

ARIA 2

[View details >](#)

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

Details

Summary Details Reference Structure Contrast

☒ 1 Alerts

- ☐ 1 X No page regions

☒ 5 Features

- ☐ 2 X Alternative text
- ☐ 2 X Linked image with alternative text
- ☐ 1 X Language

☒ 7 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 2 X Heading level 2
- ☐ 2 X Heading level 3
- ☐ 2 X Heading level 4

☒ 2 ARIA

- ☐ 1 X ARIA
- ☐ 1 X ARIA label

With  icon on darkmode toggle button

Summary

Summary Details Reference Order Structure Contrast

Errors 0

Contrast Errors 1

Alerts 1

Features 5

Structural Elements 7

ARIA 2

[View details >](#)

Details

Summary Details Reference Order Structure Contrast

☒ 1 Contrast Errors

- 1 X Very low contrast

☒ 1 Alerts

- ☐ 1 X No page regions

☒ 5 Features

- ☐ 2 X Alternative text
- ☐ 2 X Linked image with alternative text
- ☐ 1 X Language

☒ 7 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 2 X Heading level 2
- ☐ 2 X Heading level 3
- ☐ 2 X Heading level 4

☒ 2 ARIA

- ☐ 1 X ARIA
- ☐ 1 X ARIA label

Screenshots of the WAVE tool - Cheatsheet

Without icon on darkmode toggle button

The image shows two panels from the WAVE tool. The 'Summary' panel on the left has a top navigation bar with icons for home, list, info, structure, and a darkmode toggle button (two circles). It displays: 0 Errors, 0 Contrast Errors, 7 Alerts, 28 Features, 20 Structural Elements, and 2 ARIA. A 'View details >' button is at the bottom. The 'Details' panel on the right shows a list of issues: 7 Alerts (1 X No page regions, 6 X Device dependent event handler), 28 Features (25 X Alternative text, 2 X Linked image with alternative text, 1 X Language), 20 Structural Elements (1 X Heading level 1, 4 X Heading level 2, 6 X Heading level 3, 3 X Heading level 4, 6 X Heading level 5), and 2 ARIA (1 X ARIA, 1 X ARIA label).

Summary

Summary Details Reference Structure Contrast

0 Errors

0 Contrast Errors

7 Alerts

28 Features

20 Structural Elements

2 ARIA

View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

Details

Summary Details Reference Structure Contrast

- 7 Alerts
 - 1 X No page regions
 - 6 X Device dependent event handler
- 28 Features
 - 25 X Alternative text
 - 2 X Linked image with alternative text
 - 1 X Language
- 20 Structural Elements
 - 1 X Heading level 1
 - 4 X Heading level 2
 - 6 X Heading level 3
 - 3 X Heading level 4
 - 6 X Heading level 5
- 2 ARIA
 - 1 X ARIA
 - 1 X ARIA label

With icon on darkmode toggle button

The image shows two panels from the WAVE tool. The 'Summary' panel on the left has a top navigation bar with icons for home, list, info, structure, and a darkmode toggle button (a circle with a sun/moon icon). It displays: 0 Errors, 1 Contrast Error, 7 Alerts, 28 Features, 20 Structural Elements, and 2 ARIA. A 'View details >' button is at the bottom. The 'Details' panel on the right shows a list of issues: 1 Contrast Error (1 X Very low contrast), 7 Alerts (1 X No page regions, 6 X Device dependent event handler), 28 Features (25 X Alternative text, 2 X Linked image with alternative text, 1 X Language), 20 Structural Elements (1 X Heading level 1, 4 X Heading level 2, 6 X Heading level 3, 3 X Heading level 4, 6 X Heading level 5), and 2 ARIA (1 X ARIA, 1 X ARIA label).

Summary

Summary Details Reference Order Structure Contrast

0 Errors

1 Contrast Errors

7 Alerts

28 Features

20 Structural Elements

2 ARIA

View details >

Details

Summary Details Reference Order Structure Contrast

- 1 Contrast Errors
 - 1 X Very low contrast
- 7 Alerts
 - 1 X No page regions
 - 6 X Device dependent event handler
- 28 Features
 - 25 X Alternative text
 - 2 X Linked image with alternative text
 - 1 X Language
- 20 Structural Elements
 - 1 X Heading level 1
 - 4 X Heading level 2
 - 6 X Heading level 3
 - 3 X Heading level 4
 - 6 X Heading level 5
- 2 ARIA
 - 1 X ARIA
 - 1 X ARIA label

Part 1

About the project



Psychology of UX

As humans, every thought we have or action we take is dependent on multiple factors and one of them are the cognitive biases that go behind our decision making. As UX designers, understanding this psychology is extremely important to make our interactions effective and efficient. For example, to understand where a button should be or what the copy should say to prime users.

The purpose of this website is to act as a learning resource for designers (or anyone else interested in the field) on the various cognitive biases and how they affect user actions. My website has two parts to it. First, the quiz which acts as a teaching tool for users to identify their inherent biases and learn about them. The second part is the cheat sheet that contains detailed information about each of these biases along with other reading resources.

The easy to consume information bites, interactive quiz and aesthetic design all make the website interesting and engaging. The quiz is one of the crucial interactive parts of the website which fills users with curiosity in the topic. The website can also be accessed via a mobile phone as an easy to use resource to refer to in times of need. The website being extremely easy to use makes accessing the information faster. Through the website the breaking down of information into chunks and use of images makes the information easy to absorb and retain. The use of dark mode also makes it less straining on the eyes especially when using it at night.

My main target audience with my website are designers, engineers, researchers or just anyone interested in the field of psychology or design. I think the website would be a vital resource for them.

Part 2

Intended Usage



Intended website usage

1. **Click** Interaction - User selects between **'take the quiz'** and **'view cheatsheet' button**.
2. (Assuming user clicked on 'take the quiz') **Click** Interaction - User reads the quiz question on the 'take the quiz' page and **clicks on one of the answers** based on their choice.
3. **Flip** animation - Card flips to reveal answer
4. **Click** Interaction - User clicks on **'learn more' button** to read more about the 'decoy effect'
5. **Pulse** animation - User is redirected to 'the cheatsheet' page. The card containing details about the 'decoy effect' pulses into the screen for the user to read
6. **Scroll** Interaction - User **scrolls the overflow card** with details about the 'decoy effect' (User can also click on one of the resource links to redirect them to the resource page)
7. **Click** Interaction - User clicks on the darkmode toggle button on 'cheatsheet' page
8. **Click** Interaction - User clicks on the **cross icon button** to minimise the details card.
9. **Click** Interaction - User clicks on the **other two bias cards** to learn more about the other biases.
10. **Click** Interaction - User could **click on the logo** to go back to the home page

Part 3

Libraries and Resources



Libraries and resources

1. [Darkmode.js](#)

- Used it to add darkmode to my website, making it easier to read for long periods of time or at night. It makes adding darkmode extremely easy. It can be used using Vanilla JS.
- Used it to add darkmode on all pages and pop ups. When the user clicks on the toggle on the left corner of the page, the mode of the website changes. Nowadays we find darkmode on all platforms.
- Adds contrast to the website, makes it easier to read and also adds a bit of fun.

2. [W3 school - How to flip card with CSS and JS](#)

- I chose to code the flip animation using advanced CSS rather than using a library as all the libraries I tried did not work (especially the jQuery one). I found it easier to just code it in rather than using an API. Most API's focused on flip rather than click. My quiz cards also required that the flip take place only when clicked on specific hotspots.
- I used the flip animation on the quiz page to add a flip and reveal the quiz answer when user chooses a particular option. When a user clicks on one of the options, a different answer is shown on the reverse side depending on what option the user picks.
- It adds intrigue to the quiz cards while also making it seem more realistic. Also, showing the answer on the same side of the card or just below it isn't as interesting as slowly revealing the card with a flip. It adds a sense of suspense and interest to the interaction.

Libraries and resources

3. [Animate CSS](#)

- Animate CSS is a fun and easy to use library that uses JS to add simple and fun micro animations that are usually more challenging to code. I chose this tool because I wanted to add more robustness to my animations. Without Animate CSS, the micro animations seem more flat and not as smooth. Micro animations also make the users feel a sense of satisfaction.
- I used the 'Pulse' animation to my overflow cards on the 'cheatsheet' page. Every time a user clicks on any one of the biases to read details about them, the details cards opens with a bit of pop making it seem like it is revealing itself from the middle of the website. It makes the card details reveal much more interesting and smooth.
- Without this animation, the card reveal just looked like a simple show and hide. But with animate CSS, the detailed cards look much more interesting for users to read and satisfying to watch. It also makes the reveal smoother and more pleasant to look at.

Part 4

Process



Process

The first change I made on my website was to make it more accessible. Based on our learnings in class, I changed the font type and colours of my website to meet the AAA colour requirements as I had previously used extremely vibrant but inaccessible colours. The next change I made was on how the quiz options were depicted. I initially had just the cup size and cost but based on my user testing I realised that just text makes it very difficult to compare the numbers and so I added supporting visuals and broke down the information to make it easier to read and follow. I used parallel prototyping and an agile method of continuous testing with users to gain insights on whether the information architecture of the website as well as the display of content was being used by the user the same way as intended by me. While I did not have time to code more than one quiz question, the idea is that the website will be a growing repository of biases and quiz questions. Apart from the changes I made, my aim while coding was to make the website 100% and as close the figma design as possible.

Part 5

Challenges



Challenges

I had two biggest challenges while coding this website, the first was getting the flip animation on the quiz card. I tried to use many different libraries but none of them could recreate the animation I was envisioning. The second challenge I faced was with implementing the dark mode library as it would keep overriding my website colours, layout and make my website background white. While there were options to make manual changes, none of them worked on my hover elements and so I had to manually override the library in order to get my website to look the way I wanted.

end.

